

SPECIFICATION

- o Amend paragraph beginning at page 2, line 33, as follows:

Figs. 3A-B ~~is a~~ show schematic diagrams of a modulator driver that can be used in the system of Fig. 2 according to ~~one~~ representative embodiments of the present invention; and

- o Amend paragraph beginning at page 4, line 1, as follows:

Figs. 3A-B shows ~~a~~ schematic diagrams of driver 210 according to ~~one~~ representative embodiments of the present invention. Referring to Fig. 3A, in one embodiment, ~~[[D]]~~ driver 210 comprises a differential amplifier 300 and an optional bias tee 308. Bias tee 308 is configured to offset signal 212 to produce an offset clock signal 212'. Amplifier 300 is configured to generate signals 314a and 314b based on signals 202 and 212'. For example, when signal 202 is greater than signal 212', amplifier 300 may be configured to set signals 314a and 314b to a high and low level, respectively. Similarly, when signal 202 is less than or equal to signal 212', amplifier 300 may be configured to set signals 314a and 314b to a low and high level, respectively. Depending on the particular modulator used in system 200, either one of signals 314a and 314b may be used as signal 214 applied to modulator 208. In addition, both signals 314a and 314b may be applied to modulators requiring dual-drive (differential) inputs for their operation.

- o Amend paragraph beginning at page 4, line 26, as follows:

In one embodiment, control signals 310 and 312 may be signals 202 and 212', respectively, as shown in Fig. 3A. In that case, driver 210 utilizes the natural behavior of differential amplifier 300 to act both as a comparator and an amplifier. In other embodiments, control signals 310 and 312 may be generated based on signals 202 and 212 by conditioning (e.g., scaling, offsetting, and/or performing logical functions with) those signals. Corresponding additional circuitry may be required to perform such conditioning.

- o Amend paragraph beginning at page 4, line 32, as follows:

In one implementation of amplifier 300, switches 304 and 306 may be realized as field-effect transistors (FETs). Depending on the particular technology, the switching characteristics of the FETs may not be those of ideal switches. As a result, driver 210 may be configured to include two or more stages (e.g., cascaded amplifiers 300-1 – 300-N shown in Fig. 3B) to improve performance. In one embodiment, a second amplifier 300 may be added as follows. Outputs 314a and 314b of the first amplifier 300 (e.g., one shown in Fig. 3A) are used as control signals 310 and 312~~[[4]]~~, respectively, in the second amplifier 300. Then, either output signal 314a or 314b of the second amplifier 300 is applied as signal 214 to modulator 208. Additional amplifiers 300 may be added to driver 210 in a similar fashion.